**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

OZMO LICENSING LLC,

        Plaintiff,

    v.

ACER INC. and ACER AMERICA CORP.

        Defendants.

Case No. 6:21-cv-01225-ADA

JURY TRIAL DEMANDED

ACER'S OPENING CLAIM CONSTRUCTION BRIEF

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Exhibit	Description
A	U.S. Patent No. 8,599,814 (OZMO (-1225)_00001 – 00023)
B	U.S. Patent No. 9,264,991 (OZMO (-1225)_00319 – 00341)
C	U.S. Patent No. 10,873,906 (OZMO (-1225)_00579 – 00601)
D	U.S. Patent No. 11,012,934 (OZMO (-1225)_00932 – 00954)
E	U.S. Patent No. 11,122,504 (OZMO (-1225)_01148 – 01170)
F	File History, U.S. Patent No. 8,599,814 (OZMO (-1225)_00024 – 00318)
G	File History, U.S. Patent No. 9,264,991 (OZMO (-1225)_00342 – 00578)
H	U.S. Patent 9,036,613 ("Vleugels I")
I	Excerpt, Newton's Telecom Dictionary, 17th Ed. (2001) (ACER-OZMO-00002023 – 2026)
J	Expert Declaration of Dr. Paul Min in Support of Acer's Opening Claim Construction Brief, and Exhibit A thereto. ("Min. Dec.")

I.   INTRODUCTION

The asserted claims are all invalid as indefinite. This should end the claim construction

inquiry, as all asserted claims require the second network (or WPAN) to be partially consistent

with the first network (or WLAN), without providing reasonable certainty as to the required

scope of this term. Neither the specification nor the file histories cure these deficiencies, and no

further claim construction efforts should be needed. That said, should the Court construe the

remaining terms, Acer's proposed constructions for the identified terms reflect the invention

described in the intrinsic evidence, and will assist the Court and jury in applying these terms.

Acer recognizes this Court's extensive familiarity with the process of construing claim

terms by examining the claims themselves, in the context of the specifications, with reference to

the file histories where appropriate and to extrinsic evidence where necessary. *See Phillips v.*

AWH Corp., 415 F.3d 1303, 1313-18 (Fed. Cir. 2005). Accordingly, Acer is not including a

"Legal Standards" section but will cite additional cases throughout as relevant.

II.   OVERVIEW OF PATENTS

Ozmo has asserted five patents in suit: U.S. Patent No. 8,599,814 ("the '814 Patent" –

attached as Exh. A); U.S. Patent No. 9,264,991 ("the '991 Patent" – attached as Exh. B); U.S.

Patent No. 10,873,906 ("the '906 Patent" – attached as Exh. C); U.S. Patent 11,012,934 ("the

'934 Patent" – attached as Exh. D); and U.S. Patent No. 11,122,504 ("the '504 Patent" – attached

as Exh. E). All five Patents-in-Suit issued from a chain of continuation patent applications and

share the same specification.[1] The asserted patents disclose, and all asserted claims recite, a

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[1] The '991 patent is a continuation of the '814 Patent. The '906 Patent claims priority to the '991
patent through two intervening continuation applications. The '934 Patent is a continuation of the
'906 Patent. The '504 Patent is a continuation of the '934 Patent. The asserted patents purport to
claim priority back to an original application filed in 2006.

wireless hub that can connect to two wireless networks. Exh. A, '814 Patent, col. 3:37-42, claim

1, Figure 8.[2] The specification describes the first wireless network is a local area network, such

as a conventional Wi-Fi network using one or more variations of the IEEE 802.11 standard.

Exh. A, '814 Patent, col. 4:66-5:10. The second wireless network, referred to in the patents as

the SWN or as a Wireless Personal Area Network (WPAN), is a short range, low power network

designed to connect to low power devices and those that are close to (within 10 meters or 30

feet) of the network hub. Exh. A, '814 Patent, col. 5:66-6:4; col. 9:36-59.

     The structure of the claimed hub is shown in Figure 6 of the '814 patent:
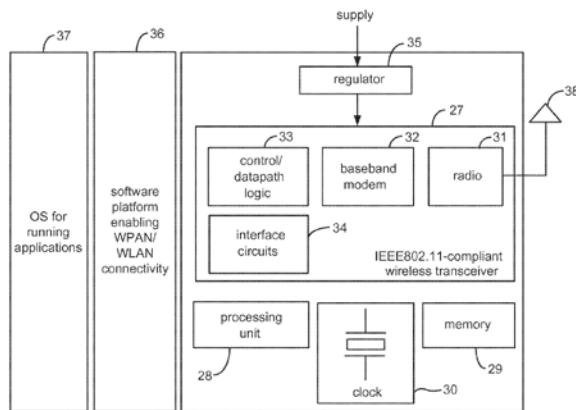
FIG. 6

Exh. A, '814 Patent, Fig. 6.

     Figure 8 shows the hub in use – with hub (STA1(COORD)) connected wirelessly to a Wi-

Fi access point (AP) and low power devices (PER1, PER2, and PER3).

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[2] Because the patents share a common specification, all citations to the patent specification are
from the '814 patent.
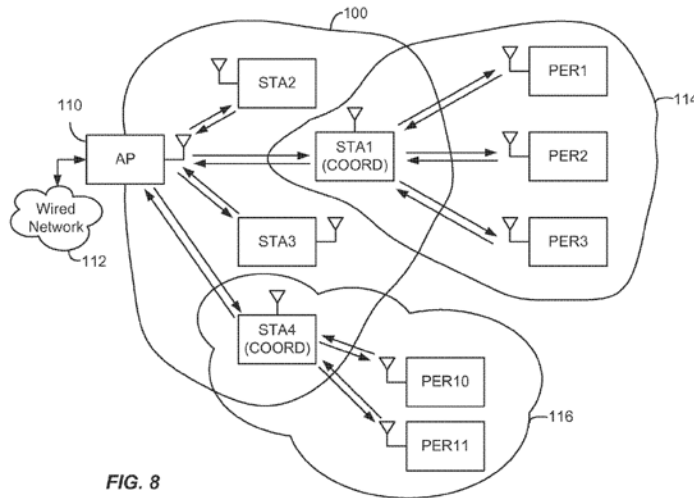
FIG. 8

Exh. A, '814 Patent, Fig. 8.

The '814 patent specification describes the operation of this system, where STA1 can communicate with the internet through the primary wireless network 100 via access point (AP) 110. Exh. A, '814 Patent, col. 11:16-36. STA1 can then transmit data from the internet through the secondary wireless network to one of the PERs. *Id.* For example, STA1 allows a power-sensitive, battery-operated PER to connect through the WLAN infrastructure to the internet via the access point. Exh. A, '814 patent, col. 4:1-16.

The first or WLAN network can be the conventional 802.11x protocol, where x is a, b, g, n, etc. Exh. A, '814 Patent, col. 4:66-5:10, 11:41-45. Alternatively, it could be other long-range network technology, including WiMax. *Id.* The secondary network is a shorter range WPAN network, which is "partially compliant" with the WLAN network. Exh. A, '814 Patent, col. 9:60-10:10. The specification does not describe the necessary changes to the secondary network, beyond that it can communicate without interference, and may be partially, but not entirely, compatible with the WLAN protocol in terms of power, frame contents and sequences, timing, etc. Exh. A, '814 Patent, col. 10:1-5. The specification lacks any description of the specific changes that should be made to the protocol to achieve these ends.

Ozmo has asserted 60 claims in this action: Exh. A, '814 Patent claims 1-7, 9, and 11;

'991 Patent claims 1-14, 16, 17, 19 and 20; '906 Patent claims 1, 2, and 4-12; '934 Patent claims

1, 2, 4, 5, 7-9 and 11-14; and '504 Patent" claims 1, 2, 4, 5, 7-9 and 11-14.[3]

III.   PERSON OF ORDINARY SKILL IN THE ART

A person of ordinary skill in the relevant art would possess at least a Bachelor of Science

degree in Electrical Engineering, Computer Science, Computer Engineering, or a closely related

field with two to three years of experience in wireless communications technology. Declaration

of Paul Min ("Min Dec." – attached as Exh. J) ¶18.

IV.   DISPUTED TERMS

A. "Logic for processing data" – '814 Patent, claim 1 and all asserted dependent claims.

Acer's Proposed Construction	Ozmo's Proposed Construction
Means-plus-function limitation	Plain and ordinary meaning
Function: processing data received from the wireless circuit	Not Subject to § 112(6)
Corresponding structure: Processing Unit 28 (Fig. 6) along with associated software platform 36.	

This limitation, along with 3 other limitations found in claim 1 of the '814 patent, should

be construed as "means-plus-function" limitations according to pre-AIA 35 U.S.C. §112(f).

Although this limitation does not include the magic words "means for," the Federal

Circuit has explained that the presumption that a claim that is not-written in means-plus-function

term is not strong, and can be rebutted if a party "demonstrates that the claim term fails to 'recite

sufficiently definite structure' or else recites 'function without reciting sufficient structure for

performing that function.'" *Williamson v. Citrix Online LLC,* 792 F.3d 1339, 1349 (Fed. Cir.

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[3] The asserted claims of the '934 and '504 Patents are effectively identical.

2015)*. And indeed, the Federal Circuit has concluded that, in the correct circumstances, the claim term "logic to" is as a means-plus-function limitation. *See, Engenera, Inc. v. Cisco Sys., Inc.*, 972 F.3d 1367, 1372-74 (Fed. Cir. 2020) (construing "logic to modify" as a means-plus-function limitation).

The claims recite no structure, only "logic for" and then a description of function. The intrinsic record demonstrates that these limitations were intended to be means-plus-function limitation as a matter of claim drafting strategy within the patent family and is further supported by the prosecution history of the '814 patent.

A comparison of asserted claim 1 of the '991 patent, and asserted claim 1 of the '814 patent, shows that they are substantially identical – with one notable difference. In claim 1 of the '991 patent, the claims are written using structural terms, such as "processor" while in the '814 patent, the corresponding limitations use the terms "logic for". This can be seen below in the chart comparing claims 1 of the '814 and '991 patents, respectively:

'991 Patent, Claim 1	'814 Patent, Claim 1
1. A network-enabled hub, usable for facilitating data communications between two or more wireless devices that are configured to communicate indirectly with each other via the network-enabled hub, comprising:	1. A network-enabled hub, usable for facilitating data communications between two or more wireless devices that are configured to communicate indirectly with each other via the network-enabled hub, comprising:
an interface to a wireless radio circuit that can send and receive data wirelessly, providing the hub with bidirectional wireless data communication capability;	an interface to a wireless radio circuit that can send and receive data wirelessly, providing the hub with bi-directional wireless data communication capability;
a processor configured to:	*logic for processing data* received via the wireless radio circuit;
process data received via the wireless radio circuit;	*logic for generating data* to be transmitted by the wireless radio circuit;
generate data to be transmitted by the wireless radio circuit;	

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initiate and maintain network connections with nodes of a wireless network external to the network-enabled hub, maintaining at least a first network connection using a first network protocol and a second network connection using a second network protocol, that can be maintained, at times, simultaneously with each other, wherein the second network protocol is an overlay protocol with respect to the first network protocol in that communications using the second network protocol are partially consistent with the first network protocol and wherein at least some of the communications using the second network protocol impinge on at least some antennae used for communications using the first network protocol; and	*logic for initiating and maintaining* wireless network connections with nodes of a wireless network external to the network-enabled hub, maintaining at least a first wireless network connection using a first wireless network protocol and a second wireless network connection using a second wireless network protocol, that can be maintained, at times, simultaneously with each other in a common wireless space, wherein the second wireless network protocol is an overlay protocol with respect to the first wireless network protocol in that communications using the second wireless network protocol are partially consistent with the first wireless network protocol and at least some of the communications using the second wireless network protocol impinge on at least some antennae used for the first wireless network; and
implement data forwarding logic, implemented in a network-enabled hub using hardware and/or software, that forwards data between an originating node and a destination node, wherein the originating node is a node in one of the first and second networks and the destination node is a node in the other of the first and second networks.	data forwarding logic, implemented in the network-enabled hub using hardware and/or software, that forwards data between an originating node and a destination node, wherein the originating node is a node in one of the first and second wireless networks and the destination node is a node in the other of the first and second wireless networks.

The different language used in these claims demonstrates that the patentee's plan was to claim the same invention a variety of ways. And it is apparent from the claim language that this strategy included patents that used means-plus-function type language, and patents that did not.

The prosecution history confirms that the "logic for" limitations should be construed as a means-plus-function limitation. As filed, the application that led to the '814 patent included the "logic for" terms at issue here. Exh. F, '814 Patent file history at OZMO (-01225)_00050. By Office Action dated December 6, 2012, the examiner explained that:

> **In claim 1**, claim limitations **"interface providing," "logic for processing," "logic for generating", "logic for initiating and maintaining"** have been interpreted under 35 U.S.C. 112(f) or 35 U.S.C. 112 (pre-AIA), sixth paragraph, because it uses a non-structural terms "interface" and "logic" coupled with functional language "providing, processing, generating, initiating and maintaining" without reciting sufficient structure to achieve the function. Furthermore, the non-structural term is not preceded by a structural modifier.

Exh. F, '814 Patent file history at OZMO (-01225)_00118 (emphasis original). The examiner gave the opportunity for the applicants to disagree with his conclusion. He explained that if the applicants did not want to have a claim limitation treated as a means-plus-function limitation, they could amend the claim or "present a sufficient showing that the claim recites sufficient structure, material or acts for performing the claimed function to preclude application" of Section 112, ¶ 6. *Id.* At OZMO (-01225)_00120.

The applicants did not do so. By amendment dated March 5, 2013, applicants responded to the office action and presented amendments and arguments intended to overcome the claim rejections. The applicants did not delete or amend the "logic for" language, nor did they present evidence that the claim required sufficient structure, material or acts for performing the claimed function. Exh. F, '814 Patent file history at OZMO (-01225)_00168-179. Accordingly, the intrinsic record supports the conclusion that these terms should be construed as means-plus-function terms.

In contrast, during prosecution of the '991 Patent, the application originally included the "logic for" language, and the Examiner again treated these terms as means-plus-function limitations. Exh. G, '991 Patent file history at OZMO (-01225)_00430. Unlike during prosecution of the '814 patent, in response to the Examiner's comments, the applicants amended the claims to remove the logic for processing, logic for generating, logic for initiating and

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maintaining language from the claim. Exh. G, '991 Patent file history at OZMO (-01225)_

00452.

These claims lack any claimed structure, and the file history makes it clear that they were

treated as means-plus-function claims during prosecution. This Court should treat them that way

as well.

Turning to the claimed function, Acer's proposed construction for the function is

precisely that recited in the claims, and thus should be adopted by the Court.

As to the corresponding structure, Figure 6 and the corresponding text in the specification

show the structure of the claimed network enabled hub. '814 Patent, col. 6:49-7:11. For

example, the specification explains that processing unit 28 is "coupled to or integrated with the

082.11x-compliant circuit." *Id.* at col. 6:54-55. The specification further provides that

processing unit 28, along with memory, is "used to implement that portion of the communication

protocol that is not implemented in dedicated control and datapath logic" and "for the

implementation of the software platform that enables concurrent or alternating WLAN/WPAN

connectivity." *Id.* at col. 7:17-38. The specification further explains that software platform 36

perform the claimed function of processing data received from the wireless circuit. *Id.* at col.

7:3-11.

Because this structure corresponds to the claimed function, the Court should adopt it as

proposed.

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B. "Logic for generating data" – '814 Patent claim 1 (and all asserted dependent claims)

Acer's Proposed Construction	Ozmo's Proposed Construction
Means-plus-function limitation Function: generating data to be sent by the wireless circuit Corresponding structure: Processing Unit 28 (Fig. 6) along with associated software platform 36.	Plain and ordinary meaning Not Subject to § 112(6)

For the reasons set forth above in Section A, this limitation should be construed as a means-plus function limitation.

Turning to the claimed function, Acer's proposed construction tracks the claimed description of the function and should be adopted.

As to the corresponding structure, Figure 6 and the corresponding text in the specification show the structure of the claimed network enabled hub. Like the logic for processing limitation above, this disclosure explains that processing unit 28, along with the corresponding software platform 36 perform the claimed function of generating data that is going to be sent to the wireless circuit for transmission. Exh. A, '814 Patent, col. 6:49-7:11. The specification further provides that processing unit 28, along with memory, is "used to implement that portion of the communication protocol that is not implemented in dedicated control and datapath logic" and "for the implementation of the software platform that enables concurrent or alternating WLAN/WPAN connectivity." *Id.* at col. 7:17-38.

Because this structure corresponds to the claimed function, the Court should adopt it as proposed.

C. **"Logic for initiating and maintaining wireless network connection" – '814 Patent Claim 1 and all asserted dependent claims.**

Acer's Proposed Construction	Ozmo's Proposed Construction
Means-plus-function limitation	Plain and ordinary meaning
Function: initiating and maintaining wireless network connection	Not Subject to § 112(6)
Corresponding structure: processing unit 28 (Fig. 6) and wireless circuit 27 along with associated software platform 36.	

This is a means-plus-function term for the same reasons set forth above in Section A.

The claimed function is that disclosed in the claim – initiating and maintaining a wireless connection. In this context of the claim, the wireless connection is to both the first and second wireless networks, as explicitly provided in the claims.

The corresponding structure for this limitation is, again, shown in Figure 6, and the corresponding description in the specification. Exh. A, '814 Patent, col. 6:49-7:11. The only difference for this limitation, is that the accused structure for initiating and maintaining the wireless connection includes wireless circuit 27, not just processing unit 28 and the associated software package.

Because this structure corresponds to the claimed function, the Court should adopt it as proposed.

D. **"First [wireless] network/second [wireless] network" – '814 Patent, claim 1 and all asserted dependent claims; '991 Patent claim 1 and all claims dependent thereon.**

Acer's Proposed Construction	Ozmo's Proposed Construction
Two distinct wireless networks	plain and ordinary meaning.

The claims and the specification make it clear that the two wireless networks are distinct – that is different. They use different protocols and are designed for different purposes. As described above in Section II, the first network is a LAN where the claimed hub can be

connected through an access point to the internet. Exh. A, '814 Patent, col. 4:66-5:10. The

specification explains that the second network is not identical to the first network – it is different

and should be more friendly in terms of minimizing power draw on battery powered devices.

Exh. A, '814 Patent, col. 5:66-6:4; col. 9:36-59.

Because the specification makes clear that the two networks are distinct, or different, the

Court should adopt Acer's proposal.

> **E. "Overlay protocol" – '814 Patent, claim 1 and all claims dependent thereon; '991 Patent, claims 1 and 19 and all claims dependent thereon; '906 Patent claims 1 and 4 and all claims dependent thereon; '934 Patent, claims 1, 4, and 7 and all claims dependent thereon; 504 Patent, claims 1, 4, and 7 and all claims dependent thereon.**

Acer's Proposed Construction	Ozmo's Proposed Construction
A protocol running on a network with at least some distinct components from the underlying network and that works together with the underlying network to provide added features	A set of rules that determine how data is transmitted between different devices as part of a network running on top of an existing network.

Acer's proposed construction for the term overlay protocol is consistent with the usage of

the term in the art and should be adopted.

The patents-in-suit impose two requirements on the first and second network. The first is

that the second network protocol is an "overlay protocol," and the second, discussed in section F

below, is that the second network protocol is "partially consistent" with the first network

protocol.

The parties' constructions differ in that Ozmo is apparently trying to define the term

"protocol" in its construction, as well as the term "overlay."   Acer contends that there is no need

to explain the term "protocol," which is understood by those skilled in the art, but that the

"overlay" aspect of the term should be construed to provide clarity.

The '814 Patent is generally silent regarding the meaning of this term. The only use of the term outside of the claims is in the following sentence: "Coordination is achieved by the use of a secondary network (WPAN) protocol that is an overlay protocol that is partially compatible with the WLAN protocol, but not entirely, in terms of power, frame contents and sequences, timing, etc." Exh. A, '814 Patent, col. 10:1-5.

The documents incorporated by reference into the patent specification, particularly, U.S. Patent No. 9,036,613 (attached hereto as Exh. H and referred to in the patents-in-suit as "Vleugels I) provide a little more guidance regarding the meaning of this term. Vleugels I explains that an overlay protocol is desirable because it can reuse some of the networking hardware from the first wireless network in the second wireless network. Exh. H, '613 Patent, col. 15:42-56; 15:66-16:2. Vleugels I explains that the PWN is a WLAN "typically used for network traffic over a relatively large space, such as a building" and that a "PAN is typically used for peripheral traffic over a narrow space, such as a room, a desk, or a person's space." *Id.* While the network protocols are different, Vleugels explains that it would be useful to permit some equipment to be "co-opted for use with the SWN, optimized to deal with some of the differing requirements of the two networks." *Id.*

This supports Acer's proposed construction, which requires the overlay network, on which the protocol runs, to work together with the underlying network. While Vleugels I explains that reuse of certain hardware is permitted, that is not inconsistent with Acer's construction, because it only requires that some of the components of the network be distinct, not that all of them be distinct.

Acer's construction is also supported by the extrinsic evidence. For example, in networks it is common to enhance the existing infrastructure to provide additional services. In doing so,

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some hardware components would be added and certain software functions to control and

manage the added hardware and the services. These software functions are often referred to as an

overlay protocol and the portion of the network (including the additional hardware and the

overlay protocol for providing the enhanced services) is called the overlay network. The concept

of an overlay network thus permits traffic to be sent over the network comprised of portions of

the existing network and the added hardware. While the overlay network is operating, the

underlying network, i.e., the network that existed before the overlay protocol and the hardware

were added, operates as before. Well known examples of overlay networks are the Integrated

Services Digital Network (ISDN) that utilized the analog plain old telephone systems to provide

end to end digital communication and the Multi-Protocol Label Switching (MPLS) that utilizes

the existing Internet Protocol (IP) networks to provide the Quality-of-Service enhanced Internet

services. Exh. I, ACER-OZMO-00002026.

For the reasons set forth above, Acer's proposed construction for "overlay protocol" is

consistent with the limited use in the patent specification and should be adopted.

F. "partially consistent/partially compliant" – '814 Patent, claim 1 and all claims dependent thereon; '991 Patent, claims 1 and 19 and all claims dependent thereon; '906 Patent claims 1 and 4 and all claims dependent thereon; '934 Patent, claims 1, 4, and 7 and all claims dependent thereon; 504 Patent, claims 1, 4, and 7 and all claims dependent thereon.

Acer's Construction	Ozmo's Proposed Construction
Indefinite	Conforming to only part of

In the context of the asserted claims the terms "partially consistent" or "partially

compliant" purport to describe the nature of the modifications that should be made to the

"second network protocol" or the WPAN protocol, depending on the specific claim set.[4] The

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[4] The asserted claims from the '814 and '991 patents use the term "partially consistent." The asserted claims from the '906, '934, and '504 patents use the term "partially compliant."

"second network protocol" or WPAN protocol must be partially compliant or consistent with the primary wireless protocol. The presence of the "second network" or WPAN protocol in a hub that is also connected to a first wireless network is a central feature of the invention. Yet the claims do not adequately inform a person skilled in the art with reasonable certainty where the line is between a protocol that is "partially compliant" with the first network protocol, as compared to one that is not. The specification does not provide explain where this line is ether. For that reason, and as explained below, this term is indefinite, and all claims containing it are invalid.

To comply with Section 112's definiteness requirement, a patent's claims, viewed in light of the specification and prosecution history, must "inform those skilled in the art about the scope of the invention with reasonable certainty." *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910 (2014). The terms "partially consistent" or "partially compliant" are terms of degree, and to be definite, must provide "enough certainty to one of skill in the art when read in the context of the invention." *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1363 (Fed. Cir. 2018); *U.S. Well Services, Inc. v. Halliburton Co.*, 2022 WL 819548, at *4 (W.D. Tex. Jan. 17, 2022) ("When a term of degree is used in a claim, 'the court must determine whether the patent provides some standard for measuring that degree.'"). "The standard must 'provide objective boundaries for those of skill in the art.'" *U.S. Well Services*, 2022 WL 819548, at *4, citing *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir 2014).

As explained in detail below, and as explained by Acer's expert, Dr. Paul Min, the intrinsic record – the claims, specification, and file history – do not provide objective boundaries for those of skill in the art that define "partially consistent" or "partially compliant." Nor do these terms provide anything close to the reasonable clarity required by *Nautilus*. The claims

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lack sufficient guidance for to permit a person skilled in the art to determine whether a particular

wireless network protocol is "partially compliant" with another protocol with reasonable

certainty. The remaining intrinsic record does not solve this problem. Accordingly, the claims

containing these terms – all asserted claims in this matter – are invalid as indefinite.

For purposes of the indefiniteness analysis, the claims can be broken down into three

groups: (1) claims that do not recite a specific first wireless network against which the second

wireless network must be compared for partial consistency; (2) claims that provide that the first

wireless network is an 802.11x network, where x includes the various Wi-Fi generations, such as

802.11a, 802.11b, and 802.11g; and (3) claims that provide that the first wireless network is an

802.11x network, and which include additional requirements for the use of modified WLAN

frames.

1. Claims That Do Not Specify Any Primary Network Protocol or Specific Modification to the Second Wireless Network.

This first group of claims do not specify the protocol for the "first network" or "WLAN"

that are recited in the claims.[5] For example, the relevant portion from claim 1 of the '991 patent

provides:

> initiate and maintain network connections with nodes of a wireless
> network external to the network-enabled hub, maintaining at least a
> first network connection using a first network protocol and a second
> network connection using a second network protocol, that can be
> maintained, at times, simultaneously with each other, wherein the
> second network protocol is an overlay protocol with respect to the
> first network protocol in that *communications using the second
> network protocol are partially consistent with the first network
> protocol* and wherein at least some of the communications using the

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[5]This group contains the following asserted claims: '814 Patent, claims 1-3, 5-7, 9 and 11; '991
Patent, claims 1-6, 9-14, 16-18; '934 Patent, claims 7-10 and 12-14; '504 Patent, Claims 7-10
and 12-14.

second network protocol impinge on at least some antennae used for
communications using the first network protocol;

Exh. B, '991 Patent, claim 1(Emphasis added).[6] Claim 7 of the '934 and '504 patents provides

that the "WPAN protocol is *partially compliant* with respect to the WLAN protocol." Nothing in

these claims, or the relevant dependent claims in this group, provides any reasonable clarity as to

the limits of "partially consistent/compliant" or how they can be reasonably determined. Exh. J,

Min Dec. ¶29. There is no explanation as to what changes might be appropriately "partially

compliant" and what changes are not. *Id.*

The specification does not provide any further guidance or objective standards for what

this term might mean. The only usage or explanation of the term "partially compliant" is found

in the section of the specification entitled "Specific Examples." Exh. A, '814 Patent, col. 9:60-

10:10. This section provides:

Communication with the WPAN device might use an SWN protocol
that is only *partially compliant* with the protocol used over a
conventional WLAN and might do so without interference from the
conventional WLAN, yet usage of the WLAN is such that the
WPAN device and computing device can communicate without
interference. To reduce interference, the computing device
coordinates the usage of the wireless medium with devices of a
WLAN that may be active in the same space. Coordination is
achieved by the use of a secondary network (WPAN) protocol that
is an overlay protocol that is *partially compatible* with the WLAN
protocol, but not entirely, in terms of power, frame contents and
sequences, timing, etc. The secondary network (WPAN) protocols
might be 802.11 x frames with new frame arrangements adapted for
WPAN needs, such as reduced latency, power etc. The computing
device might determine to signal the primary network (WLAN) such
that devices therein defer so that communications can occur with the
primary network.

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[6] The corresponding passage in claim 1 of the '814 patent is virtually identical except for being
written in means-plus-function form as explained above. '814 Patent, claim 1.

Exh. A, '814 Patent, col. 9:60-10:10 (emphasis added). So, what does this tell the person skilled in the art about what can or cannot be partially compliant? Not much. Exh. J, Min Decl. ¶32.

First, without identification of a first protocol, there is no guidance as to what might be adjusted. Different protocols can have wholly different frameworks, and without some knowledge of what the first network might be, there is simply nowhere to start the modifications that might make something 'partially compliant' with it. Exh. J, Min Dec. ¶25.

Second, while the specification directs the person skilled in the art to consider power, frame contents, sequences, and timing, these are ordinary constraints in the design of a wireless protocol – nothing about this recitation discloses the nature of "partial compliance" or what aspects of these factors should be adjusted. To the contrary, this description creates more confusion because identification of "power, frame contents and sequences, timing, etc." effectively constitutes most of the non-mechanical and environmental aspects of a WLAN standard. Exh. J, Min Dec. ¶32. Merely reciting these categories provides no certainty as to what changes to the protocol are "partially compliant" and what are not. *Id.*

The specification identified factors are also considerations in the design of protocols that the patents-in-suit contend are not "partially compatible" with a first network protocol – protocols like Bluetooth and Ultra-Wideband. Exh. A, '814 Patent, col. 2:22-44 (explaining that these WPAN protocols may result in "severe interference"). Exh. J, Min Dec. ¶38. Nor does the reference to frames provide guidance – as a "frame-based" structure is common to many wireless networks, including those, such as Bluetooth identified as not being "partially consistent" with the main protocol. *Id.* The patents provide no guidance to harmonize these requirements – that some modifications may be made, but we won't tell you what, and we won't tell you how. This is insufficient to cure the problematic language in the claims.

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Finally, nothing in the prosecution history cures this deficiency. The prosecution history is silent as to what might make something "partially compliant" beyond what is disclosed in the specification – a lack of interference, and the fact that Bluetooth is not "partially compliant" compared to 802.11x. Exh. F, '814 File History at OZMO (-01225)_00177-78. But this merely creates confusion as to scope for the reasons set forth above, and does not provide the necessary objective boundary to the claims.

These claims should be held invalid for failure to comply with 35 U.S.C. 112(2).

2. Claims Where the Primary Network is an 802.11 Network but No Further Network Details Are Provided.

The second set of claims are slightly narrower.[7] They cure at least one of the deficiencies discussed above – they identify the "first wireless network" or WLAN as an 802.11x network, such as the well-known 802.11a, 802.11b, and 802.11n Wi-Fi standards. See, for example, claim 19 of the '991 patent, which provides:

> wherein the second network protocol is an overlay protocol with respect to the first network protocol in that communications using the second network protocol *are partially consistent*, *but not entirely consistent*, with the first network protocol, and wherein the *first network protocol is an 802.11x* wireless protocol and the second network protocol is a modification of the 802.11x wireless protocol that is not entirely compliant with the 802.11x wireless protocol of the first network but can be maintained in a common wireless space as the 802.11x wireless protocol

Exh. B, '991 Patent, claim 19 (emphasis added).

Identification of the starting protocol as a reference for partial consistency, while an improvement compared to the claims in group I, does not give these claims the required certainty of scope. Exh. J, Min Dec. ¶¶32-36. An explanation that the second network protocol is

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[7] The claims in this group are: '814 Patent, claim 4; '991 Patent, claims 7, 8 and 19-20.

a modification of the 802.11x protocol, without any guidance regarding changes that are

acceptable and those that are not, does not make the claims definite. *Id.*

Nor does the intrinsic record provide sufficient guidance for these claims. The flaws

identified in Section F.1, above apply with equal force here. Simply stating that some

modification can be made to the 802.11 protocol, without identifying some objective category of

changes that make the second wireless network "partially compliant" with the 802.11 standard

does not provide sufficient guidance to a person skilled in the art, and thus, these claims are

indefinite for the reasons set forth in section F.1 above.

3. Claims Where the Primary Network is an 802.11 Network, and some specific requirements for the Personal Area Network are recited.

Finally, we reach the narrowest claim set.[8] All of these claims recite that the WLAN is

an 802.11 network and that the WPAN is "partially compliant" with the WLAN. For example,

claim 1 of the '906 patent provides as follows:

> wherein the WPAN protocol is an overlay protocol that is partially
> compliant with respect to the WLAN protocol such that the WPAN
> protocol uses a WLAN protocol frame adapted to support a WPAN
> power-saving protocol that is different as compared to a power-
> saving protocol supported by the WLAN protocol

Like the claims discussed in section F.2, these claims limit the WLAN protocol to an

802.11x compatible protocol. Exh. C, '906 patent, claim 1 ("wherein the WLAN protocol is an

802.11x protocol that uses a frame defined by the 802.11x protocol"). For the reasons set forth

above in sections F.1 and F.2, the fact that these claims recite that the WLAN is an 802.11x

protocol, and that the WPAN protocol is "partially compliant" with that protocol, does not make

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[8]. These claims are: '906 Patent, all asserted claims; '934 Patent, claims 1, 2, 4, 5 and 11; '504 Patent, claims 1, 2, 4, 5 and 11.

the claim term definite, because it does not define the required level of compliance with

reasonable certainty.

There is a second aspect to this group of claims. They require that the WPAN protocol

use "an adapted frame," which is "adapted from a WLAN protocol management frame," and

where "at least one field of the frame defined by the 802.11x protocol is adapted to support the

WPAN power-saving protocol." *See, e.g.,* Exh. C, '906 patent, claim 1.

The recitation that an adapted WLAN protocol management frame is used in the WPAN

does not make these claims definite. A person skilled in the art would know that the 802.11

standards include protocol management frames. Exh. J, Min Dec. ¶34-36. But the claims provide

no further guidance as to the nature of the modification that should be made to these frames. Is a

change in one field enough? What about a change to all fields but one? Nor do the specification

or prosecution history provide any guidance. As noted above, the specification explains that

modifications be used to impact power consumption, latency, or the structure of the frame date,

but these do not provide any guidance as to what to change in the frame, and thus do not provide

the required clarity. *Id*. Finally, the statement that "the secondary (WPAN) protocols might be

802.11x frames with new frame arrangements adapted for WPAN needs, such as reduced

latency, power etc." is contradicted from another part of the '814 specification:

> In accordance with one embodiment, a PS-STA is typically in a
> sleep mode the majority of the time, only waking up occasionally to
> communicate and exchange information with the outside world. In
> some systems described herein, each PS-STA 11 is equipped with a
> wireless circuit that can communicate directly with a standard
> 802.11x-compliant wireless circuit. PS-STAs 11 however are not
> required to be fully compliant with the 802.11x specification; some
> PS-STAs 11 may have reduced power dissipation thereby extending
> the battery life. In embodiments in which PS-STAs 11 are not fully
> compliant with the 802.11x specification, the drivers or firmware of
> the 802.11x-compliant wireless circuit at the other end of the
> communication link (i.e., the device with which the PS-STA is

> interacting) may require modification. Thus, in some implementations, both the wireless circuit at the other end as well as the PS-STA are 802.11x-compliant, while in others the wireless circuit at the other end is 802.11x-compliant, but the PS-STA is not a fully compliant 802.11x wireless circuit, while in yet other implementations the driver or firmware of the 802.11x-compliant wireless circuit at the other end of the link requires modifications to accommodate the PS-STA.

Exh. A, '814 patent, 5:43-65. Exh. J, Min Dec. ¶35-36. This excerpt suggests that partially compliant is something that is not fully compliant, but again provides no guidance as to what that should be. *Id*. With the absence of any guidance as to what modifications are "partially compliant" and what are not, the claims do not identify the claimed scope with reasonable certainty and are thus invalid.

G. "Data forwarding logic" – '814 Patent, claim 1 and all asserted dependent claims; '991 patent claims 1 and 19 and all asserted dependent claims

Acer's Proposed Construction	Ozmo's Proposed Construction
Means-plus-function Limitation	Plain and ordinary meaning
Function: forwarding data between an originating node connected to one network and a destination node connected to a different network	Not Subject to § 112(6)
Structure: control/datapath logic 33 (Fig. 6) along with associated software platform 36	

This is a means-plus-function term for the same reasons set forth above in Section A.

The function of this term, as set forth in the claim, is to create a datapath so that data can be transferred from one network (the originating node) to another network (the destination node). As an example, the hub can connect to a Wi-Fi network and a second work, as illustrated in Figure 8, and a node on the Wi-Fi network can transmit data to STA1(COORD), which then can transmit the data to a node on the second network for example PER1.

The corresponding structure for this function is described in the specification as the datapath logic 33 along with associated software platform 36. Once again, the structure for this is shown in Figure 6, as explained in the specification. Exh. A, '814 Patent, col. 6:49-7:11

Because this structure corresponds to the claimed function, the Court should adopt it as proposed.

H. "Configured to agree/can agree/mutually agreeable" – '814 Patent claim 5; '906 Patent (Claims 1-; '934 Patent, claims 1, 2, 4, and 5, '504 Patent, claims 1, 2, 4 and 5.

Acer's Proposed Construction	Ozmo's Proposed Construction
The first and second wireless devices jointly determine an inactivity time.	Set up to be able to come to an arrangement or understanding

One aspect of the invention, which is reflected in a subset of the claims, is a usage management scenario that permits the hub (first wireless device) and one or more of the satellite devices (second wireless device) to jointly determine scheduling for their communications. The specification describes two benefits that arise from this agreement process.

First, there is the power management example. The specification explains that the devices can agree when neither are going to transmit and then they can turn off certain circuits for power management purposes to save battery life both in the PER, and potentially in the hub if it is a battery powered device like a laptop. Exh. A, '814 Patent, col. 11:47-58.

In addition, the claimed hub and members of the PAN can agree on specific times for communication. This is useful for PANs that include multiple devices. The devices and the hub can agree to time intervals during which each PER device can communicate with the hub, and the other PER devices will be inactive during that time slot to avoid creating interference. *See, e.g.,* Exh. A, '814 Patent, Figs, 11, 12 and col. 12:13-18.

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The fundamental point here is that the two devices communicate and jointly arrive at the arranged transmission or inactivity times to avoid interference and to save battery life. This joint agreement by the devices should be given meaning.

For these reasons, the Court should adopt Acer's proposed construction.

I. **"Personal Area Network" – '991 Patent, claim 19 and all claims dependent thereon; '906 Patent claims 1 and 4 and all claims dependent thereon; '934 Patent, claims 1, 4 and 7 and all claims dependent thereon; '504 Patent, claims 1, 4 and 7 and all claims dependent thereon.**

Acer's Proposed Construction	Ozmo's Proposed Construction
A network, different from the local area network (LAN), that has shorter range and lower transmission power.	A short-range wireless network usable to connect peripherals to devices in close proximity.

As explained in the specification, the purpose of the alleged invention is to create a bridged network between high-powered LAN devices and lower power devices that are located near the hub, and that often cannot support higher power requirements. Both parties agree that a "PAN" is a short-range wireless network, and that the purpose of the PAN is to connect peripherals located in close proximity to the hub. The difference between the parties' proposed constructions turns on two points – whether the transmission power of the PAN should be low; and whether the shorter range and lower power should be compared to the WLAN.

Turning first to the transmission power.

The point of the invention described in the asserted patent is to "seamlessly [integrate] short-range wireless personal area networks ("WPANs") into longer-range wireless local area networks. ("WLANs"). Exh. A, '814 Patent, col. 1:25-29. The specification further explains that the use of WLAN circuitry in WPAN stations ("STAs") would not be acceptable because "the power dissipation of the resulting STA would be several orders of magnitude higher than what is acceptable in typical WAN applications." Exh. A, '814 Patent, col. 2:45-51. This is the natural

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result of the fact that WPAN technologies "are typically used to establish communication with a remote battery-operated device for which it is inconvenient, impractical, or may be impossible to replace batteries." *Id.,* col. 2:51-63. The specification explains that to preserve battery life, which is of "paramount importance," stringent requirements must be placed on the power that is dissipated in establishing and maintaining the wireless communication link. *Id.* Indeed, the specification goes on to explain that WLAN protocols use both "high transmit powers (up to 20 dBm)" and are also required to receive relatively weak signals, requiring "stringent receiver sensitivity requirements." *Id.*, col. 2:63-3:27; *see also*, col. 10:33-37 ("A wide variety of PAN devices are contemplated that are adapted for short range wireless communications, typically bi-directional and typically low power so as to conserve a PAN device's limited power source.") Thus, the intrinsic record makes clear that the personal area network should be a low-power protocol.

The range and power comparison should be made against the relevant WLAN. After all, the specification highlights both the difference in range (WPAN of 30 feet and WLAN of approximately 300 feet) with reference to one another:

> To operate, wireless hub 12 is placed within range of the AP7 of the infrastructure WLAN 6; this range is typically on the order of 300+ feet. The wireless hub 12 is also be placed within the range of each of the PS-STA's I the WPAN 10. The PS-STA's typically have a range of about 30 feet. This range can be longer or shorter depending on the application.

See, e.g., Exh. A, '814 Patent, col. 5:66-6:4; col. 9:36-59 (demonstrating that range of WPAN is on the order of 30 feet/10 meters). Indeed, the one benefit of the PAN is to replace cables between a computer and associated peripherals in close proximity. Exh. A, '814 Patent, col. 9:36-47. In explaining the importance of low transmission power for the WPAN, the benchmark again is the WLAN standard. *Id.*, col. 2:63-3:33; col.8: 50-53 ("communicate to a nearby

wireless hub that acts as a seamless bridge between the low-power WPAN and the longer-range

WLAN"). This, then provides the correct frame of reference

Acer's proposed construction will be easier for the Court and the jury to apply and places

the invention in its proper context – the node operates two networks – one is a longer-range,

higher-powered LAN, and the other is a shorter ranged, lower powered PAN.

Acer's proposed construction should be adopted.

J. "At least partially disable the wireless connection" – '906 Patent (claims 1 – all claims), '934 Patent (claims 1, 2, 4, and 5), '504 Patent (claims 1, 2, 4 and 5)

Acer's Proposed Construction	Ozmo's Proposed Construction
Turn off a portion of the wireless circuit to save power.	To make at least part of the wireless connection inactive

This term should be construed to give meaning to what, exactly, it means to "partially

disable" the wireless connection. As explained above in section F, the use of the term "partially"

in this context has the potential to be ambiguous. However, unlike the terms "partially

consistent/compliant," the intrinsic record provides sufficient guidance for partially disabling the

wireless connection to make this term definite and construable.

The claims provide that the reason to partially disable the connection is to permit the

relevant device to save power. See, e.g., '906 patent, claim 1. This is illustrated by the

specification directly, as well as the documents incorporated by reference therein, all of which

explain that power can be saved by disabling a portion of the wireless transmission circuits in the

hub to save power. *See, e.g.*, Exh. A, '814 Patent, col. 12:13-50 ("To conserve power at the

WPAN device and the computing device, they can agree on an inactivity time and disable at least

a part of a coordination function of the computing device following a start of the inactivity time,

wherein disabling is such that less power per unit time is consumed by the network circuit

relative to the power consumed when not disabled."); Exh. H, '613 Patent, col. 15, lines 20-26

("As an example, the PER and COORD may agree on inactivity times, and disable at least part of the logic and/or circuitry at the start of an inactivity time.").

　　　If, as exemplified in the specification, the hub and the PER have agreed to an inactivity time, then one or both of these devices know that they will not be transmitting or receiving during that time frame and can depower certain circuits to save power.

　　　Accordingly, Acer's proposed construction should be adopted.

Dated:　June 24, 2022　　　　　　　　　　Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that all counsel of record who are deemed to have

consented to electronic service are being served with a copy of this document via the Court's

CM/ECF system on June 24, 2022.

/s/ Eric H. Findlay